

Michael O. Leavitt Governor Dianne R. Nielson, Ph.D. Executive Director Don A. Ostler, P.E. Director

## DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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December 15, 2000

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**Executive Secretary** 

Mr. Stephen Flechner, President North Lily Mining Company 1800 Glenarm Place, Suite 210 Denver, Colorado 80202

Subject:

Post-Closure Fluid Management Plan Approval ((Notice of Violation (NOV) and

Order Docket Nos. UGW20-03 & UGW20-04)

Dear Mr. Flechner:

We have received the final Post-Closure Fluid Management Plan dated December 1, 2000 prepared by JBR Environmental Consultants, Inc. The plan was submitted to meet the NOV and Docket Nos. UGW20-03 and UGW20-04, issued to North Lily Mining on October 19, 1999 and March 7, 2000, respectively.

The proposed Post-Closure Fluid Management is to install an infiltration field, in addition to the existing in-pond evaporation system, for disposal of heap leach pad drain down fluid. Once the pad drain down fluid flow stabilizes, the in-pond evaporation system will be removed and drain down fluid will be disposed of through the infiltration field only.

According to an inspection conducted on December 4, 2000, by representatives from DWQ and DOGM, it is evident that North Lily has completed regrading the leach pad to establish a stable slope to permanently reclaim the heap leach. We understand that seeding of the pad surface for vegetative cover, as required by DOGM, is underway. Therefore, we feel that it is justified at this time to proceed with the installation of leach field system for post-closure fluid disposal.

The proposed design for the leach field has been reviewed for completeness in accordance with the Utah Administrative Code R317-5. The design is acceptable based on the information presented in the plan and appears to comply with R317-5 requirements to construct an absorption field. Therefore, the installation of the proposed infiltration system is hereby approved subject to the conditions stated below:

1. Any revisions or modifications to the design must be submitted to DWO for review and approval, before construction or implementation thereof.

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DIVISION OF OIL, GAS AND MINING December 15, 2000 Mr. Stephen Flechner, President Page 2

- 2. Please submit as-built drawings for the proposed septic tank that will be utilized as an equalizing basin. We recommend that North Lily acquire the pre-manufactured septic tanks from manufacturers that are approved by the State of Utah. A copy of approved septic tank manufactures is enclosed for your reference.
- 3. Percolation test conducted at point E shows a value that exceeds the maximum allowable soil percolation rate requirement, 60 minute per inch, listed under R317-5. Therefore, we feel that areas with close proximity to point E are not suitable for infiltration field system.
- 4. As stated in the plan and per our conversation with you on Dec 5<sup>th</sup> conference call meeting, we understand that additional percolation test is being conducted. In the meeting, you also stated that land surveying is being performed at the proposed site. Please fax/submit the results of the testing and the surveying to our office as soon as they are available.
- 5. Upon completion of your surveying and percolation testing, final sizing of the system incorporating infiltration field location, design volume and flow rate must be submitted to our office for review and approval.
- 6. Upon finalizing the infiltration system design, you will need to obtain of approval for construction from DWQ. One week prior to commencement of construction, provide us your construction schedule so that we can make arrangements for construction inspection(s). The constructed system must not be placed in service unless DWQ has made a final inspection, and has authorized in writing the operation of the system.
- 7. Once the leach field is installed and approved for service, North Lily must submit a schedule, for our approval, to maintain the system incorporating maintenance of leach field pipes and equalizing basins. Discharge pipes and equalizing basins must be cleaned out periodically to prevent clogging and sediment accumulation, which could significantly affect the flow and volume capacity of the system. North Lily must also ensure proper functioning of the pumping system(s), valves, and other relevant equipments at all times to maintain the leach field system performance.

We have reviewed the contaminate fate and transport assessment report incorporated in the plan. The assessment is conducted to determine the effects of contaminants that may be released into the surrounding aquifer as a result of the proposed leach field operation; and its impact on the ground water quality. The assessment model presented in the plan demonstrates that the underlying unconfined aquifer has a natural attenuation capacity through advection, diffusion and mechanical mixing which will reduce the concentrations of contaminants of the leach field effluent.

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The assessment method is acceptable. Based on the demonstration listed in the plan, it is concluded that the proposed infiltration field will not significantly impact the ground water quality in the vicinity. However, the assessment relies on many assumptions that cannot be independently verified. If additional information discloses a ground water problem at this site originating from the infiltration field or past operations, North Lily will be liable for any ground water contamination and will be required to develop a plan to investigate or remediate the contamination.

The design criteria for the leach field and the contaminant assessment report presented in the plan demonstrate that the leach field is a viable option at the site. Therefore, DWQ has approved the proposal plan based on the conditions listed above.

If you have any question, please contact Beth Wondimu at (801) 538-6084.

Sincerely,

Dennis Frederick, P.E., Manager

**Ground Water Quality Protection Section** 

Enclosure (1)

cc:

Robert Bayer, JBR Environmental Consultants, Inc. (w/attachment) Wayne Hedburg, Division of Oil Gas and Mining (w/o attachment)

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## STATE OF UTAH APPROVED SEPTIC TANK MANUFACTURERS (Nov 16, 2000)

Company/Address /Contact	Contact Person	Appr'd Models (Size, Gallons)	Remarks
Duracrete, Inc. P.O. Box 65489 Salt Lake City, UT 84165-0489	Mr. Chris McKean 801-972-8686	1000, 1250, 1750, 2500	
Dutson Supply Co. 790 West Main Delta, Ut 84624	Mr. Calvin Dutson 435-864-2020	1250, 1573	·
Hancy's Backhoe Service 5 S 500 East Millville, Ut 84326	Mr. Owen Hancy 435-752-8363	1000	
KaneCo Products 256 S 400E Kanab, Ut 84741	Mr. Cloyd Chamberlin 435-644-2977	1000, 1250	
Linquist's Concrete Products 4500 Washington Blvd. Ogden, UT 84403	Mr. Jaime Clark 801-479-7000	"Standard" 1000 "Low Profile" 1000, 1250, 1500	
Norwesco, Inc. 4365 Steiner Street P.O. Box 439 St. Bonifacius, MN. 55375-0439	Mr. Rick Aronson Ms. Anastasia O'Hara 612-446-1945	500, 750, 1000, 1250, 1500 (polyethylene)	300 gallon "sphere" not approved. Tooele Factory: 90 South 1200 West Tooele, Ut 84074 435-882-5338
Robertson Manufacturing 445 East 85 South Hyde Park, UT 84318	Mr. Robert Balls 435-563-1000	1000, 1250, 1500	
Rupp Trucking, Inc. 7905 West 9600 North Tremonton, UT 84337	Mr. Blaine Rupp 435-257-7333	1250	

Sorden's Cast-Crete, Inc. 990 South 100 East Washington, UT 84780	Mr. Bob Riding 435-673-6790 435-652-8383 (Fax)	1000, 1250, 1500	
Thorpe Burial Vault, Inc. 1267 West 800 North Mapleton, UT 84664	Mr. Bill Wimmer 801-489-6111	1000, 1250, 1500	
Upwall Precast Concrete 1586 East 3850 South St. George, Ut 84790	Ms. Jill Upwall 435-673-9377(v) 435-652-9179(f)	1250 gal	

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